Sitting, the new smoking?

The effects of prolonged sitting have recently been the subject of much new research.It has been known for a long time that a sedentary lifestyle has negative impacts on our health. In 1713, an Italian Physician, Bernardino Ramazzini, observed that tailors and cobblers who sat at their work would suffer more from ill health compared to those in a more active occupation.



More recently, in 1953, Jeremy Morris and colleagues found that bus conductors who climbed the stairs of double-decker busses in London as part of their regular workday experienced half the number of cardiovascular events when compared with their colleagues who spent 90% of their work hours sitting.

Increasingly sedentary behavior dominates our modern life, just as smoking did a few decades ago. The negative impact prolonged sitting has on our health, is making it known as the new smoking.

Over the years, guidelines have been developed on recommended daily exercise to promote health, and off-set the negative impact of our increasingly sedentary lifestyles. Recent studies have demonstrated associations of sitting time with obesity, metabolic syndrome and diabetes, markers of cardiovascular disease risk, cancer, and premature mortality.

Unfortunately, this research also shows that there is no significant decrease in negative health effects of long periods of prolonged sitting, between groups who exercised outside of work and those who did not. Interestingly, what was shown to significantly decrease these negative health impacts was period of regular movement through the day, with 3 mins of gentle walking per hour having more benefit than an hour at the gym each day performing high intensity exercise.

Statistics from the Netherlands and Australia show that across the workforce, working adults spend on average up to half their work day sitting down. An Australian study found that those working full-time sit for an average of 4.2 hours per day at work, and in addition, spend 2.9 hours sitting in leisure time, indicating that occupational sitting is likely the largest contributor to overall daily sitting time.

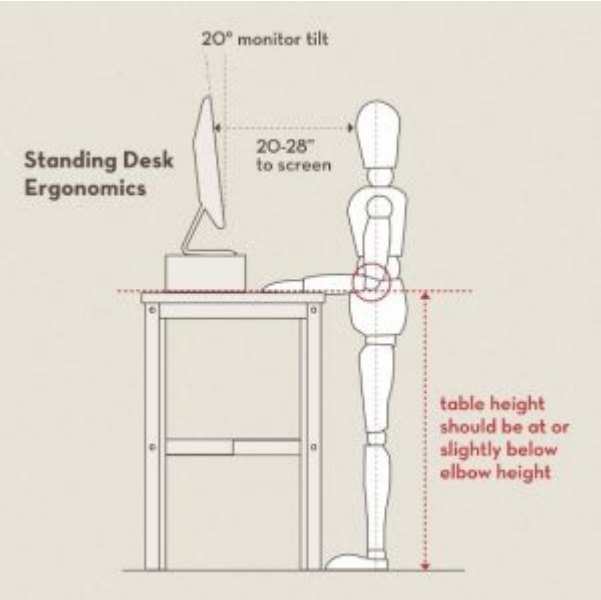
The adverse effects of prolonged sitting are mainly related to reduced metabolic and vascular health. Prolonged sitting has been shown to disrupt metabolic function, resulting in increased triglyceride levels, decreased levels of good cholesterol,

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and decreased insulin sensitivity, altering blood sugar levels. Sedentary behaviour also affects carbohydrate metabolism through changes in muscle glucose transporter protein content. Physical activity and sedentary behaviour have different influences on the body at a molecular level, changing the chemistry within the body. These changes are independent of each other in their impact on health.

Based on this new body of research, more attention has been drawn to the impact of prolonged sitting time. Research shows replacing sitting time with standing or walking helps reduce the health risks posed by too much sitting. The health risks linked to prolonged periods of sitting are particularly pertinent to people with largely sedentary jobs, such as office workers. A growing number of people are getting standing desks in an attempt to counter these negative effects.

Standing desks are an effective way for office workers to incorporate more standing into their work day. However, standing all day has its set-backs as well, and could increase your chances of musculoskeletal problems, and varicose veins. When transitioning into a standing desk, be aware that the same ergonomic set-up should be considered, such as adjusting table height, screen height, monitor distance from eyes, wrist and arm positions, and general posture. It may take a while for your body to adjust to standing, and you may notice some discomfort during this transition period. Most people like to alternate between standing and sitting. Listen to your body and find a strategy that works for you.



People who don't have the option of a standing desk can implement strategies to decrease prolonged sitting. Incorporating breaks from sitting may benefit your health and productivity. Breaks may include periodic standing up, stretching or walking. Look for opportunities that allow you to stand at work, such as while you are using the phone, having meetings, or better yet, organise an outdoor walking meeting. Walking to talk to your colleague instead of sending an email, or having to stand up to use the photocopier, will provide an excuse to move away from your desk and break-up prolonged sitting periods. Setting an alarm, or using a reminder at work at least every hour, will help to prompt you to keep moving.

Prolonged sitting is a risk factor for all-cause mortality. Shorter sitting times and sufficient physical activity are independently protective against mortality for healthy individuals, as well as those with cardiovascular disease, diabetes, and obesity. Take a stand at work by decreasing your prolonged sitting, in addition to maintaining your physical activity to protect yourself against these negative outcomes.

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